



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/084,608	02/26/2002	Norio Koma	349	4219
26021	7590	12/12/2005	EXAMINER	
HOGAN & HARTSON L.L.P. 500 S. GRAND AVENUE SUITE 1900 LOS ANGELES, CA 90071-2611			WANG, GEORGE Y	
			ART UNIT	PAPER NUMBER
			2871	

DATE MAILED: 12/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

H.A

Office Action Summary**Application No.**

10/084,608

Applicant(s)

KOMA, NORIO

Examiner

George Y. Wang

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-16 and 20-25 is/are pending in the application.
- 4a) Of the above claim(s) 20-25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 09/162,984.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
2. Claims 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koma (U.S. Patent No. 5,608,556) in view of Hisatake et al. (U.S. Patent No. 5,434,690, from hereinafter "Hisatake").
3. As to claim 14, Koma discloses a vertically aligned liquid crystal display (fig. 4) comprising a vertically aligned liquid crystal layer (41) disposed between a plurality of pixel electrodes (31) and a common electrode (32), where the orientation of the liquid crystal is controlled by an electric field (42), and where the common electrode

comprises a plurality of orientation controllers (23, 34) formed in areas corresponding to each of the plurality of pixel electrodes.

However, the reference fails to specifically disclose each of a plurality of the pixel electrodes divided by one or more line-shaped slits, in which no electrode is present, into two or more electrode regions, which are electrically connected and arranged in parallel with each other, and each of the orientation controllers associated with a corresponding pixel electrode and having portions extending along the direction in which one or more slits or projections extend where one of the orientation controllers is disposed between the two slits.

Hisatake discloses an LCD device (fig. 1a) where each of a plurality of the pixel electrodes (14) is divided by one or more line-shaped slits (14b), in which no electrode is present, into two or more electrode regions (14a), into two or more electrode regions, which are electrically connected and arranged in parallel with each other, and each of the orientation controllers (15, 16) associated with a corresponding pixel electrode and having portions extending along the direction in which one or more slits or projections extend where one of the orientation controllers is disposed between the two slits or between the corresponding one of the one or more slits and a gap between adjoining pixel electrodes (fig. 1b).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have each of a plurality of the pixel electrodes divided by one or more line-shaped slits, in which no electrode is present, into two or more electrode regions, which are electrically connected and arranged in parallel with each other, and

each of the orientation controllers associated with a corresponding pixel electrode and having portions extending along the direction in which one or more slits or projections extend where one of the orientation controllers is disposed between the two slits since one would be motivated to provide a lower driving voltage while providing quick response speed (col. 3, lines 41-43) that result from the degree of freedom afforded by such a configuration (col. 9, lines 47-56). Ultimately, this provides an LCD device that is capable of widening the angle of viewing field and enhancing light transmittance (col. 3, lines 36-40).

4. Regarding claims 15-16, Koma discloses the vertically aligned LCD as recited above, however, the reference fails to specifically disclose orientation controllers (23, 34; see circled areas in the reproduced figure below for convenience) with sloped projections extending along the longer edge of the electrode region and branching at both longitudinal ends of a corresponding one of the electrode regions toward the corner section of the electrode (23, 34; see circled areas).

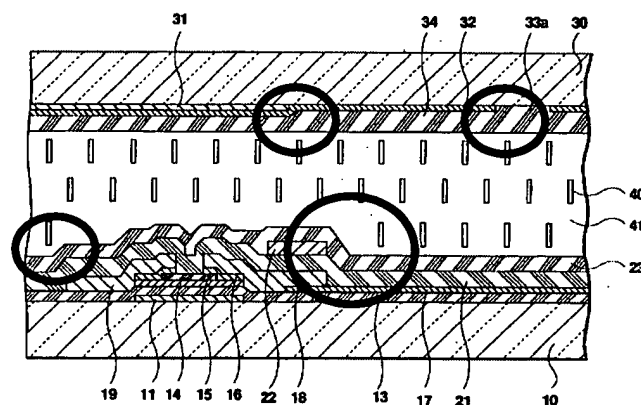


Fig. 4

Response to Arguments

5. Applicant's arguments with respect to claims 14-16 have been considered but are moot in view of the new ground(s) of rejection.

Applicant has amended independent claim 14 to recite that the slits are "line-shaped," where "no electrode is present," and have eliminated the "projections." As a result, new reference Hisatake et al. (U.S. Patent No. 5,434,690) has been found to disclose, and render obvious, these new limitations in accordance with the rejection present above. Therefore, Applicant's amendment has not placed the application in condition for allowance at this time.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Y. Wang whose telephone number is 571-272-2304. The examiner can normally be reached on M-F, 8 am - 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert H. Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

George Y. Wang
Examiner
Art Unit 2871

December 8, 2005


ANDREW SCHECHTER
PRIMARY EXAMINER